

Media Relations

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Astrophysicist Available To Discuss Powerful Solar Flares

DURHAM, N.H. – A scientist from the University of New Hampshire's Space Science Center within the Institute for the Study of Earth, Oceans, and Space is available to discuss the implications of the powerful solar flare that erupted from the sun on Wednesday September 10, 2014.

Nathan Schwadron (603-862-3451; nschwadron@guero.sr.unh.edu), principal investigator (PI) on the Cosmic Ray Telescope for the Effects of Radiation (CRaTER) instrument onboard NASA's Lunar Reconnaissance Orbiter mission and PI on the Earth-Moon-Mars Radiation Environment Module being developed at UNH, can provide both expertise and context.

The X-class solar flare—the most powerful type—erupted from an Earth-facing sunspot known as Active Region 2158, which also fired off another intense solar flare yesterday. The powerful solar eruptions and subsequent “space weather” can create damaging radiation storms on Earth over the next several days. Such storms can disrupt satellites that operate global positioning systems and other devices, create widespread radio blackouts, lead to rerouting of airline flights over polar regions, and cause spectacular aurora. Aurora watchers in the northern U.S. should look for possible activity tonight through Saturday night.

Recent solar activity over the last five to ten years has shown unusually quiet conditions with solar energetic particle events becoming increasingly rare. The evolution of the current solar maximum is fundamentally changing current understanding of solar evolution. Scientists are trying to understand if the sun remains at an activity maximum or if activity is, in fact, on the decline.

Says Schwadron, “While the jury is still out, the recent solar flare suggests that the sun may still be active, albeit, in an unusually quiet solar maximum. The implications for the future of space weather currently hang in the balance. Will the sun remain in its abnormal state, or will we see the return to levels of solar activity more usual for the space age? This is the big question with which scientists are currently wrestling.”

For further information on Schwadron’s research, visit <http://www.eos.unh.edu/Faculty/Schwadron>

The University of New Hampshire, founded in 1866, is a world-class public research university with the feel of a New England liberal arts college. A land, sea, and space-grant university, UNH is the state's flagship public institution, enrolling 12,200 undergraduate and 2,300 graduate students.

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